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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: George M. Vais

Group/Art Unit: 3641

Application No.: 10/004,999

Examiner: Troy Chambers

Filed: 12/07/2001

Title: Muzzle Brake

Attorney Docket No: VAIG101

**Declaration of George Vais in Response to Examiner's Action
dated: 8/5/2003**

I George Vais, do hereby declare from my own personal knowledge the following:

1. I am a living individual currently residing at 182 S. Cole Road Boise, Idaho.
2. I am 55 years old.
3. I am a gunsmith, having worked in this industry since 1980.
4. I am skilled in the art of gun smithing and have acquired a reputation for various gun pieces that I design and manufacture, which include particularly devices for guns called muzzle brakes.
5. I have reviewed the references cited by the Examiner, in his office action and believe that my invention is a substantially different and better than any of these devices.
6. The present invention is a novel and non-obvious invention as compared to various forms of prior art. The prior art muzzle brakes while decreasing the amount of recoil force felt by a shooter also provide an increase of noise and gas blast back upon a shooter.
7. This occurs because as the gas escapes through the openings that exist in the prior art

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muzzle brakes, the gases contact the body portions of the muzzle brake and are bounced back toward the shooter. This reflection of gasses back towards the shooter causes an increase in the amount of noise perceived by the shooter and the amount of fatigue that the shooter suffers. For this reason many individuals simply refuse to use muzzle brakes. Because they do not like the increased noise and the blast of air and gas back into their face.

8. My invention provides a significantly quieter and less fatiguing muzzle brake because the shape and design of the present invention directs the dispersing gasses away from the shooter, and prevents reflection of the noise and gasses back upon the shooter. The design of my invention directs these escaped gasses away from the shooter in a manner that is significantly quieter than the other muzzle brakes that exist.

9. My design has first openings that are closest to the discharge end of the barrel as compared to any other opening and which are longer than any other opening in the muzzle brake.

10. When the projectile passes through the muzzle brake, the accompanying gasses escape from the muzzle brake through these openings.

11. The force of the gas itself through the barrel provides a forward force component to the mass of the gas and directs the gas away from the shooter.

12. In the muzzle brakes made by others when the gas escapes from the device the aperture through which the gas passes is usually shorter than the other openings and the gas is reflected

back towards the shooter.

13. In my invention, this initial dispersion of gasses is dispersed through the elongated openings and away from the shooter, with reduced amounts of gas reflected off of the device as compared to other prior art muzzle brakes.

14. This results in less noise being perceived by the shooter because less gas is reflected off of the muzzle brake and back towards the shooter.

15. For example the firing of rifle with a typical muzzle brake results in the increase of noise perceived by a shooter of between 12 and 14 decibels. While a user of the present invention would perceive a decibel level of between 6 and 8 decibels. This is due to the way in which noise producing gasses are released from the device.

16. My invention has had great commercial success. Persons who used the other muzzle brakes have purchased and used my muzzle brake because my muzzle brake does not direct gas into their faces and noise towards their ears, the way that the other muzzle brakes do.

The undersigned, being hereby warned that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application or any resulting registration, declares that the facts set forth in this application are true; all statements made of his/her own knowledge are true; and all statements made on information and belief are believed to be true.

DATED August 26, 2003


George Vais